

Serial No.: 10/053,666
Atty. Docket No.: P67552US0

REMARKS

By this Amendment, claims 1-14 have been canceled, and new claims 15-28 have been added. Accordingly, claims 15-28 are pending in the application; claims 15, 27 and 28 are independent claims. In view of the above amendments and the following remarks, favorable reconsideration of this application is respectfully requested.

~~The Examiner rejected claims 1 and 14 under 35 U.S.C.~~
112, second paragraph, as being indefinite, and rejected claims 1-14 under 35 U.S.C. 103(a) as being unpatentable over Applicants' prior art disclosure in view of ordinary skill in the art and U.S. Patent No. 4,275,122 to Fisher. The Examiner also rejected claims 10-12 under 35 U.S.C. 103(a) as being unpatentable over EP 0 532 016 to Padden.

By this Amendment, Applicants have canceled claims 1-14 thus rendering the previous rejections technically moot. However, with respect to new claims 15-28, Applicants offer the following remarks in support thereof.

As set forth in claim 15, the present invention is directed to a connecting device used in an aircraft to connect a movable part of the aircraft with a structural component thereof. The connecting device includes at least one fitting that is made

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of a synthetic material and secured to the movable part by gluing. With this construction, the connecting device according to the present invention is able to reduce or avoid the drawbacks known in the prior art which are caused by differing thermal expansion between the movable part and the traditional metal fittings used to connect such parts to the structural parts of the aircraft. In addition, the present invention is low in ~~weight while providing a high loading capacity, good durability~~ and simplified manufacturing requirements.

To best accomplish the intended objects of the present invention, the fitting is preferably made of a composite material that is the same as the composite material from which the movable part is made, as set forth in claim 27. In this way, a slight difference between the thermal expansion of the fitting and the thermal expansion of the movable part is safeguarded and, due to the reduced thermal expansion differences, the need for additional connecting elements is avoided such that the overall weight of the connecting device is reduced. It is also possible to form the fitting integrally with the movable part, as set forth in claim 28, thereby eliminating the shearing forces caused by thermal stresses.

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In rejecting the original claims, the Examiner stated that it would have been obvious to one of ordinary skill in the art to glue the fitting with the movable part since gluing and bolting are equivalent. While in some instances, it may be true that gluing and bolting are alternatives, it would not be obvious to a person skilled in the aviation industry to consider substituting gluing when connecting movable and structural aircraft components which are known to be subject to considerable shearing forces which necessitate a high number of screws or rivets for secure connection (see page 2, lines 2-15).

With respect to Fisher and a glued attachment shown therein, Fisher teaches a shaft and universal joint member assembly having a plurality of superimposed layers of material and an adhesive bond between axially inter-fitting parts. The object of Fisher is to overcome or reduce the disadvantages arising from the possibility of disruption of the shaft structure between its different fiber layers in the region of the universal joint connection. This is an entirely different field of invention with a clearly different object from that of the present invention.

Padden describes a spoiler for the wing of an airplane as discussed in the specification at page 3, lines 12-17. The hinge fittings are disclosed as being preferably of aluminum

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(page 4, line 6), and there is nothing to suggest gluing of the fittings to the spoiler surfaces 21, 23. Thus, Padden does not address the problem being solved by the present invention.

For at least the foregoing reasons, claims 15, 27 and 28 are patentable over the prior art; claims 16-26 are also in condition for allowance as claims properly dependent on an allowable base claim. Favorable consideration is requested.

~~With this amendment and the foregoing remarks, it is~~
respectfully submitted that the present application is in condition for allowance. Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney so that the present application can receive an early Notice of Allowance.

Respectfully submitted,

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